1 October 1973

STAT

MEMORANDUM FOR:

SUBJECT   : Draft of COINS Presentation for
PFIAB Meeting

1. I worked over this past weekend with [   ]   STAT
[   ] preparing the attached paper on COINS. Also
attached is the letter of 25 September 1973 from Adm. Anderson,
PFIAB, to the DCI and Dr. Hall which is the immediate reason
for preparing the attached draft report on COINS.

2. George Hicken will be at the ASD(I) office this morn-
ing to review this draft and provide some attachments. I will
receive a copy of his input.

3. [   ] has just advised me by phone that Dr. Hall
is in general agreement with this draft. He also advises that
Hall would be quite willing to have the final version of this
paper either a joint DCI/ASD(I) presentation or as a report
from ASD(I) as Executive Agent. Your decision is required
on this.

4. I am sending copies of this memo to [   ]   STAT
Chuck Briggs. I am asking that both of them be prepared to
make any comments to you they desire tomorrow (Tuesday).

5. Today I will be writing a draft of a DCI statement
which will dovetail with the attached paper and amplify
certain points that I think the DCI should be making. I
am also developing a list of "tough questions" and proposed
answers which the DCI should have as back up material.

STAT

Acting Chairman, IHC

Atts (2)

cc: [   ] IHC Reading File
Mr. Briggs / IHC Subj File (COINS)
NCF Chrono

MEMORANDUM FOR: [ ]

    I have been instructed to prepare the DCI's reply to Adm. Anderson on his COINS letter (attached).

    I understand COINS is on the agenda for PFIAB this Friday, 5 October.

1 Oct 73
(DATE)

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Draft of ADX(.) Presentation to PFIAB

HH-1

9/30/73

BACKGROUND

The origins of COINS stem from a review of the operation of the Washington area intelligence community performed in 1965 by the President's Foreign Intelligence Advisory Board. The PFIAB informed the President that community progress in applying information science and technology was unsatisfactory and stated: "Unless strong and immediate actions are undertaken in this area, there is danger that the efficiency of the production and dissemination of intelligence within the intelligence community will decline progressively, and that the already high costs involved will climb so steeply as to jeopardize rational support of the broad intelligence effort."

Three actions were recommended, the second of which led eventually to what is now called COINS. [   ] STAT

STAT [   ] project be expanded to include participation by other member agencies of the intelligence community in an experiment as a first step toward interagency information handling. The President approved the recommendations and directed the DCI to undertake the responsibility for implementing them.

In July 1967 the PFIAB reported to the President that although the community had made noteworthy strides in information handling,

the problem was not being addressed adequately on a concerted community-

wide basis, and made several recommendations for a phased implementation

of a community-wide information handling system. By May 1968 the COINS

experiment was more clearly defined and an Evaluation Panel was to be

established by the IHC to evaluate the experiment as soon after July 1969

as was practical. Due to the continuously fluctuating nature of the COINS

system, that evaluation was not performed.

II.   COINS EXPERIMENT

Although initially recommended in 1965 and reaffirmed in 1967 and 1968, the COINS experiment had its real beginning in 1969, when the DCI approved a set of goals and objectives for the experiment. The COINS experiment was to be a feasibility test of interagency information handling to determine the utility of such a concept to intelligence analysts and other users. The experiment was to allow the community to gain vital experience in the design, development, and implementation of remote accessing systems, as well as providing practical training and actual experience in the operation of such systems. Additionally, COINS was to determine the requirements for and the utility of an operational follow-on systems.

The initial configuration was to have four host processors inter-connected through an IBM 360/30 store-and-forward switch. The original hosts were: DIA (IBM 360/50), NSA (Univac 494), NPIC (Univac 494), and CIA (IBM 360/67). The State Department was to be connected to the network through a terminal wired to the switch.

The implementation of the experiment faltered many times during 1970 and early 1971. The NSA Univac 494 computer did not become fully operational until mid-1971. DIA experienced considerable difficulty in integrating its new GE 635 system into the network to replace the IBM 360/50 as the file processor. CIA determined that their needs could be satisfied

simply by procuring published and magnetic tape copies of the DoD files

and that the agency's computer participation was not justified. In April 1971,

CIA therefore changed its mode of participation from that of a host

computer node, utilizing their IBM 360/67 system, to a direct terminal

link to the NSA computer. NPIC withdrew from COINS because its only

file contribution was in a security compartment not approved for COINS.

NPIC later rejoined the network, operating solely in a passive mode,

accessing other agency files through its Univac 494 processor. State

Department reconfigured to a direct terminal connection to the DIADLS

computer.

By mid-1971 the principal host systems were: the NSA Technical

Information Processing System (TIPS), an information storage and retrieval

system operating on the RYE computer complex (Univac 494's); the DIA

On-Line System (DIAOLS), a time-sharing intelligence support system

operating on dual Honeywell G-635 computers; and the Univac 494 system (IIS)

operating in a passive mode at NPIC. Additionally COINS became able to

interface with the developing IDHS communications network (IDHSC) and

services two of the U&S commands, CONAD and PACOM, through the

same IBM 360/30 store-and forward switch which controlled the netting of

the Washington-area hosts.

By September 1972, COINS was processing more than 1800

interrogations monthly of 25 files (counting the eleven DIA installation

files as one file class) through 45 terminals located in the Washington area, CONAD, and PACOM.

It is well at this point to summarize what COINS was and was not intended to be.

First, COINS was designed to operate in a "batch" interrogation mode rather than an interactive interrogation moade. It was implemented using the retrieval languages and the data recording conventions which already existed on each of the host facilities.

As an experimental effort in information exchange, COINS was not intended to solve all the information handling problems in the U.S. Intelligence Community. No effort was made to provide need-to-know controls, or to operate in a multi-security-level environment. No effort was made to consider possible operational requirements such as 24 hour, 7-day operation, fail-safe redundancy, or high reliability. No effort was made to insure the accuracy or timeliness of the file data. Network monitoring for performance was haphazard, and was not responsive to user requirements to know the status of their queries.

III.   ASD(I) REVIEW

In September 1972, in response to an NSA proposal to proceed with

the development of a COINS II system, the ASD(I) suggested that a group

not charged with the implementation of the system review the broad question

of information exchange under the general auspices of IRAC. Consequently,

a COINS Review Group was formed, and charged with the following

objectives:

1.   To review and evaluate the COINS system, determining

its effectiveness in meeting the present and anticipated requirements of

the user community. This would allow an evaluation of the broad requirements

for automated information exchange, and of the ability of COINS to satisfy

that requirement.

2.   To identify those areas where the effectiveness of

COINS may be enhanced.

3.   To recommend courses of action and consider their impact.

on present and future budget allocations.

The Review Group was formed in late October 1972, and was

comprised of representatives of the DCI, the national agencies involved

in automated intelligence information handling (NSA, CIA, and the Department

of State), DIA as the DoD intelligence producer, a COINS participant, and

representative of the Services and U&S Commands. The Group was chaired

by the ASD(I) representative.

Maximum use was made of existing data, reports, and statistics, and whatever on-going work was available. However, for analysis of the total community file structure, it proved necessary to develop information which did not exist previously. The Group solicited and obtained descriptive material from each agency regarding all pertinent files, whether or not then accessible through COINS. The compilation of file information, together with agency expressions of interest in those files, represented a significant contribution which was used to derive some major conclusions and recommendations.

The review found that the achievements of the COINS experiment were notable, considering the lack of definitive resource or management support it had received. COINS had demonstrated the potential operational utility to be derived from the interagency sharing of data bases in an on-line fashion. It also demonstrated that a single data base of common concern could be built and maintained to meet specific requirements of the community. Specifically, DIA and NSA had jointly combined to create a new file of interest to both agencies (Eurasian Air Facilities File, AIRSA).

Of major import to the community was the fact that the experiment provided the opportunity to come to grips with real-world operational problems such as security, retrieval languages, data standards, secure data communications, user education and support, interagency management

problems, etc., and assess their import. It enabled the users to identify technical requirements for an operational system of the future.

The general conclusion of the review was that a requirement for on-line information exchange did exist and would significantly increase in the future. This conclusion was supported by a number of observations.

1.   There is an increasing dissatisfaction within the community with manual files. There is a correspondingly growing awareness within agencies of the existence of files on-line in other agencies for which access would be desirable and beneficial.

2.   There are large bodies of information presently collected which by their very essence can be efficiently disseminated only on-line. Special processing centers are increasingly maintaining such information on-line, and the prognosis is for rapid expansion. Examples are air movements, naval movements, photography readouts, etc.

3.   When one agency maintains information on-line the only efficient means of access is on-line. The entire air movements data base, put on-line by NSA under USIB direction, is such a file.

4.   The user agencies in the Washington area had expended resources to participate in the COINS experiment and additional organizations both inside and outside of the Washington area had expressed a requirement to participate.

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5.   The user agencies represented on the Review Group expressed high interest in on-line access to a total of 54 existing files, of which 12 were then available through COINS.

6.   Available data show that more than one third of the COINS interrogations represented one organization interrogating the files of another.

COINS had also demonstrated that on-line data base exchange among community users was feasible and achievable. This conclusion was supported by the following observations:

1.   COINS was providing operational support to community users and had a potential for even greater operational utility, provided present limitations were overcome. Additionally, it had developed experience for the community in dealing with such problems as:

    a.   Netting together of diverse computer systems.

    b.   Management of networks.

    c.   Security

    d.   Data standards

    e.   Retrieval languages

    f.   User education and support

2.   An organizational structure providing the mechanism for the handling of present and future problems of interagency exchange had been evolved.

3.   Analysts had been provided a manipulative capability which has helped to enhance their effectiveness, and had resulted in an overall manpower savings.

4.   A number of daily electrical end product reports had been replaced by on-line COINS access tailored to consumer requirements, at the same time relieving a burden on communication facilities. It was estimated that the reduction caused a savings of more than $1 million per year in communication costs.

The study also revealed notable shortcomings in the COINS approach to information exchange. Some of these were management-oriented, and others purely technical.

1.   The assignment of one of the COINS user agencies as the executive agent for the COINS experiment had not provided sufficient management in authority to deal effectively with relevant problems of conflict between agencies regarding roles and missions with regard to intelligence collection, processing, dissemination and production.

2.   Security and compartmentation was a critical issue. Significant information was excluded because of security restrictions.

3.   The community was not satisfied with the selection of files available through COINS. In this connection it must be stressed, however, that the decision to place any file on COINS rested wholly with the sponsoring agency. In the last analysis, COINS is only as good as the files

which may be accessed through it.

4. Timeliness of file access was not satisfactory. Users were unaware at the time of query initiation how long interrogations would require for satisfaction, or if the query would ever be answered.

5. File maintenance and updating needed improvement. Agencies maintained only those files which were of internal operational value, and also resisted external pressures to alter data formats and query systems, or to include more detailed data than they themselves needed.

6. Education, documentation, and training of users and potential users were problems of continuing concern because of the changes in the user population, the addition or modification of files, and changes in service.

7. The COINS configuration limited its capability to satisfy future interagency access requirements. This was due to the switch architecture. Because of the switch, the system could not be interactive, limiting its usefulness for much desirable data. Furthermore, reliance on the switch was inconvenient. Closure at nigh, or over weekends and holidays prevented access to certain needed files. Switch failure could also be critical.

Based on the review, the following were recommended:

1. The DCI direct that an aggressive program of automated information exchange be undertaken.

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2.   The ASD(I) be appointed the COINS executive agent under the auspices of the DCI with the COINS Project Management Office (PMO) made responsible to the executive agency.

3.   COINS funding be continued, subject to stipulations included below.

4.   The USIB Security Committee and its Computer Security Subcommittee address the multi-level security problem with an eye toward immediate interim solution. Pending the attainment of a true multi-level security capability, the group recommended as most practical, that the entire COINS System be upgraded to TK.

5.   The COINS data base be purged of files for which little or no interest has been demonstrated, and other available non-COINS machine files for which interest has been expressed be included in COINS as quickly as possible.

6.   Present COINS reporting procedures be modified to allow the collection of statistics more amenable to permitting evaluation of system usage, timeliness, and effectivenss. The COINS project manager be directed to submit a plan for statistical reporting which would (a) identify the objectives of such reporting (i.e. what must be learned about the system), (b) the items of data to be collected to satisfy the objectives, and (c) the analysis to be performed on the data to provide the desired information.

7.   The COINS Project Manager and each participating organization take appropriate steps to accelerate and expand the program to train, inform, and motiviate both users and potential users.

8.   A plan be developed for an upgraded system addressing the weaknesses noted earlier. Specifically to be addressed were means to eliminate the switch and provide interactive capability to users.

IV. PROGRESS FROM APRIL 1973 TO PRESENT

Since the appointment of ASD(I) as the Executive Agent for COINS

in April 1973, significant progress has been made in each area of weakness

reported by the COINS Review. In general, those problems which were

capable of solution by immediate action, or by executive fiat, have been

solved. Those problems which required further study have had the necessary

studies commenced, and in some instances, completed. Those problems

which require the conceptualization of long range plans for the orderly

development of a future system of information storage and retrieval for

the intelligence community, have been receiving the careful scrutiny of

the DCI and the ASD(I) in concert.

As one of immediate actions, the COINS switch was directed to remain

open on a seven day, twenty-four hour basis. This now-permits users

to access files through COINS on weekends, and at times which are more

convenient to users outside of the Washington area than previously.

Secondly, a solution to the security problem has been achieved by

bringing the entire network up to the TK level. This has enable NPIC to

place its files in the COINS data base, and has resulted in a marked increase

in COINS usage.

In order to properly address the problems of the data base available

to COINS users, an interagency working group was established, under the

sponsorship of ASD(I), and having representation from each of the user agencies.

This Data Base Working Group is examining all files of interest to the COINS

users in detail, whether or not presently in the COINS data base, in an

effort to determine a more optimum set of files for COINS. The examination

takes into account the file content, format, data structure, maintenance

and update procedures and schedules, and security, as well as the technical

feasibility *and cost* of converting the file (if required) to a format suitable for

COINS. This detailed file information, provided by the sponsor of the file,

is being staffed through the users in the other COINS agencies in order to

receive their ratings of the desirability of, or necessity for accessing

the file through COINS.

This file analysis is expected to accomplish (and in some cases has

already accomplished) several benefits. First, exposing the files of each

agency in such a level of detail to users in other agencies will familiarize

them with the information available from other community sources. This

will have the positive *effect* of changing the environment which has led to

the creation *of* redundant files, and will enhance future cooperation between

the user agencies.

Since the advent of the Data Base Working Group, the file structure

of COINS has been modified and expanded considerably. Files which were

determined to be of little value were purged from the Data Base, and

additional files, determined to be of high interest to the community have

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been added. The net change has been positive -- the 25 files available in

October of 1972 have been expanded to include 40 files at this writing.

Additionally, redundancies have been eliminated. For example,

NSA has ceased its efforts to create a Soviet Air Order of Battle File, after

determining that a similar DIA file was available to them through COINS.

One of the major weaknesses noted in the ASD(I) review had to do

with the limitations for on-line operation and the future growth of COINS

caused by the store-and-forward switch. The study recommended that a

proposal be made which would allow COINS to expand readily by eliminating

the switch. As a result of that recommendation, an interagency group was

formed, which addressed the problems inherent in the development of a

new communications network concept for COINS. After several months

of deliberation, the group evolved a plan for COINS II, based on existing

technology, which would solve the problems cited in the report, and have the

further beneficial affect of allowing for expansion to new hosts when required,

and also allow for the inclusion of interactive on-line systems on COINS.

These efforts show a remarkable increase in interagency cooperation

over the past six months. The intelligence community is demonstrating,

in effect, its belief that its best interests are served through a joint attack

on the problems facing it.

In August of 1973, five months since the appointment of ASD(I) as

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COINS Executive Agent, file usage had more than doubled. The number of

terminals used to address queries through COINS had increased from the

previous 45 to 83, and the number of files being accessed had increased

from 25 to 40.   *Another emphasis dissemination controls (?) imposed by collectors.*

There are several problem areas still remaining. Principal among

these is the question of data standards. Another is the presently annoying

and growing problem of multiple query languages required to access the

multiple systems. This latter problem will take on severe proportions

as new host processors are introduced into the COINS network. Present

thinking calls for introduction of the CIA host processor in FY 74, and the

State Department host processor in FY 75. Additionally, a processor is

soon to be installed at PACOM, and several at EUCOM, which will be

desirous of interfacing with COINS through the expanding IDHSC network.

THE INTELLIGENCE COMMUNITY INFORMATION PROBLEM

The intelligence "community" is a complex association of agencies committees and other organizations interleaved with major departments of the federal government and the military force structure. Its primary concern is the collection, processing and analysis of information, and the production and distribution of intelligence products in response to a wide variety of consumer needs. To do this it utilizes manpower and physical assets with an annual cost of several billions of dollars. It is to be expected then, that the intelligence information data base -- its creation, management and use -- involves many complex problems.

In order to address PFIAB questions covering the need for and use of consolidated versus multiple data bases, and the attendant role of COINS, it is useful to separate the community into various classes of information users, such as, resource managers, planners, data collectors, intelligence analysts, intelligence estimators, and intelligence product consumers. Each of the many information user categories which could be listed have both unique information needs and overlapping or common needs. COINS was created specifically to address the needs of the intelligence analyst. His needs are most amenable to partial solution through automated information exchange. Other systems have

developed independently to meet other needs. Some of these are ~~CIRIS,~~

IDHS, ~~AEGIS,~~ PACER and most recently IMIS. More specifically:

AEGIS, CIRIS

(1) CIRIS (Consolidated Intelligence Resource Information System) is

an information system using a data base containing the distribution of

resources (manpower, dollars, physical assets) throughout the community,

identified by fiscal year, cost category, geographic area, organizational

entity, intelligence mission, intelligence function, intelligence activity

and intelligence target. Its files are managed by the DCI staff, updated by

periodic data calls on the community. Its various displays can be used

principally by resource managers. It provides for example, an inventory

of collection resources supporting the USIB Critical Collection Problems

Committee. It is currently under review to evaluate the role it should

play in view of our current and future information needs.

(r) IDHS (Intelligence Data Handling System) consists of the facilities,

equipment procedures and personnel within the General Defense Intelligence

Program that provides the technical and operational intelligence data

handling capabilities which contribute to the general intelligence support

of the U.S. military forces. It is a complex system consisting of many

subsystems and is a contributor to the World-Wide Military Command

and Control System. Its files are distributed throughout DoD, inter-

connected by a communications network (IDHSC). It utilizes a communication

network interconnecting the National Military Intelligence Center, and

various military command headquarters. It accesses data bases and

processors essential to the indications and warning function. It is also

used by analysts. IDHS is currently under a functional review to

determine what it must provide in the future to perform the roles and

missions for which it was conceived. This review will initiate an

IDHS master plan accounting for all community wide interfaces.

(3)　　AEGIS is an all source document retrieval system which provides

a computer based index to information reports, finished intelligence,

and intelligence periodicals produced by the CIA, other USIB agencies

and selected non-USIB and government agencies. Its files reside at

the CIA and information uniquely accessible to CIA analysts together

with information useful to and accessible to DoD analytical agencies.

(2)　　PACER is an interactive data management, retrieval and

display system supporting the Strategic Air Command. It supports the

indications and warning function, reconnaissance mission planning, targeting,

imagery interpretation, collection management, strategic estimates and

threat estimates. Its files reside at SAC Headquarters. PACER will

be able to access the community through the IDHS communications

network (IDHSC). It is also currently under review to determine how

its utility and access of application can be extended.

(5)   IMIS (Intelligence Management Information System) is a concept

recently developed by DIA. It is designed to provide resource management,

requirements management, tasking support, product dissemination support

and document storage and retrieval. It is intended to provide uniform

standards and definitions for identification and reporting purposes and

to provide a common management language. There is no other system

uniquely addressing DIA's information management problem, but IMIS

clearly has interfaces with other community information handling systems

which must be carefully evaluated.

These examples illustrate the following points:

1.   The nature of the community and the intelligence process

is such that the development of various information systems to meet

the many user needs is to be expected.

2.   Some of these systems will be complementary, and must

have compatible interfaces.

3.   Some of these systems may overlap and require unnecessary

duplication to maintain. This, of course, must be avoided.

4.   We have a continuing need to evaluate the performance

and utility of existing intelligence data handling systems, project our

findings against our future requirements, and provide the guidance and

resources to see that these requirements are satisfied efficiently.

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5.   We are currently developing a ~~base~~ for the integrated planning

and management of intelligence information handling system through a

number of related evaluations of existing systems.

The capability that COINS has demonstrated, and the resulting

benefits to the community are encouraging and will be considered as we

continue to develop our program for community wide intelligence information

handling management.   The concept that COINS may develop as a single

integrated system to serve all users of the intelligence community is

unrealistic as is the concept of a single all purpose national intelligence

data base.

The future role for COINS can now be considered as being the

interconnecting element between all of the various related subsystems

elements of the intelligence information handling community.   Its main

role will be to provide a means for the entire community to better utilize

the distributed data bases and distributed processing capabilities of the

many widely dispersed intelligence computer and information handling

systems.

VI. COINS FUTURE ROLE IN THE COMMUNITY

Specific Actions

Today COINS represents the only capability for multilaterally

interconnecting the computer based file assets of the ~~covered~~ several segments

of the intelligence community for their mutual benefit. Upon the

completion of COINS II a communication network will have been established

with sufficient data rate and flexibility to permit eventual interactive real

time data interchange between all elements of the intelligence community.

However, much more remains to be done before such real time data

interchange is actually achieved. One of the future roles of ASD(I) as

COINS Executive Agent is to see that this data interchange actually takes

place in a useful and effective manner.

Specifically we believe that through ASD(I) the COINS program

should:

a. Manage the network which ties together all pertinent

computers and terminals of the intelligence community.

b. Manage the interfaces between the intelligence communication

network, the host processors, and other computer terminal systems.

c. Initiate actions for and coordinate placement of other host

computers and data handling networks in COINS.

d.   Maintain user satisfaction with the COINS network and insure that the network is responsive to user requirements.

e.   Coordinate file standards, quality, and timeliness.

f.   Initiate actions for making needed files available through COINS, consolidating similar files, and eliminating duplicate files.

g.   Initiate actions so that real time interactive queries and responses will gradually become available for all users of the COINS network.

h.   Coordinate compatibility standards between intelligence data processing systems.

i.   Initiate the development and/or use of a common network query and retrieval language.

j.   Initiate and coordinate actions to eliminate electrical and paper dissemination of intelligence data wherever on-line terminal access to files will handle the job more effectively and save dollars.

k.   Coordinate development and introduction of multi-level security for intelligence data processing systems.

l.   Initiate expanded coverage for users other than analysts such as product consumers.

m.   Develop a 5 and 10 year plan for COINS covering development, procurement, and operation.

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n.   Insure a step by step orderly transition from individual subelement systems for specific users to a more generally useful integrated network of subelement systems wherein the files of any sub-element become accessible to any cleared user with need.

o.   Provide for the introduction of next generation computers and memories into the COINS network when they become economically desirable.

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√ll   BENEFITS

General

COINS will provide a timely and effective means for analysts and

consumers to interchange information.   The value of better interchange

on the final intelligence product can be most significant.   For example,

~~the~~ *perceived* U.S. missile gap of the 60's disappeared when the PACER system at

SAC was able to effectively bring together, ~~all~~ *data on all Soviet* missile silos~~photography-and-~~

~~reports~~ and compare them against *an evolving* ~~a~~ consolidated data base.   Similarly,

users of COINS will be able to have available a ~~consolidated~~ *coherent* data base

on a wide variety of intelligence problems, ~~even-though-this-data-base-is~~

although distributed among several ~~files-in-diverse~~ locations.   While it is difficult

to predict which future mistake will be eliminated by COINS, there is

little question but that a properly operating COINS system will reduce the

number and severity of intelligence mistakes in the future.

In the past, ~~different-communities-of~~ analysts produced their reports

in relative isolation from data that existed in the other community.   Today,

COINS permits photo interpreters to directly access pertinent SIGINT

information.   This has been quite helpful to those photo analysts who have

learned to use COINS.   It is most impressive that these analysts find

substantive value in COINS despite the operational deficiencies of the

current COINS network.

As one measure of effectiveness of the COINS network we can inquire what percentage of computer queries are made over the COINS network to other ~~people~~ files as compared to the number of queries that people make through COINS ~~computers~~ to their own files. This number turns out to be ~1/3 and indicates that the analyst user considers the COINS network much more valuable than the amount of funds spent on the network (~1% of applicable intelligence computer costs).

From Improved Resource Management

By permitting the analyst to query interagency files that are updated in real time, considerable annual dollar savings may be expected. For example, COINS has permitted NSA to discontinue completely its electrical dissemination of AIR MOVEMENT reports resulting in an annual savings of more than $1 million. As COINS communication networks and interfaces are improved we expect ~~to be able to~~ considerably reducing the electrical and paper distribution of other reports with an expected annual saving of several million dollars.

Individual machine files are maintained by each subdivision of the intelligence community. Most of these files are now stored ~~on~~ locally, accessed through local computers. These files contain a large percentage of ~~duplicative~~ duplicating the material that is organized differently ~~in each users file~~. The start up cost of an average new file

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for the intelligence community (30,000 records) is *approximately* $60,000 with file

maintenance and update averaging $20,000 per year. COINS has made it

possible to eliminate many of these old files, consolidate data from many

similar files into slightly more general files, and substantially decrease

the creation of new individual files. *which are duplicative of existing files.* For example, COINS has already

eliminated _____ files and consolidated _____ files despite the

awkwardness of using the present COINS system. It is expected that

completion of COINS II will permit us to deactivate and consolidate

~ 20-50 files at an annual dollar saving of $.2 to .5 million.

I can't answer these questions

Future Benefits

Users (analysts and product consumers) must now sift through

data and reports to find that material in which they are interested. This

data is then sifted, stored, and reprocessed for use by higher level

consumers. COINS by virtue of computerized accessibility to all pertinent

files, no matter where they are located, offers the promise of providing

the user on command that information in which he is interested. This

information can be automatically sorted and formatted so that it will

match the users needs. The ability to obtain information in a timely

fashion when it is needed can greatly reduce the paper flow and people

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needs of the intelligence community as well as insure that the output

produce is a result of the latest information from all sources.
of the type used in the COINS.

The Washington community has over 150 intelligence files. World-

wide the number of computerized intelligence files approaches several

hundreds. New files are being created at an ever increasing rate. Many

of these new files are created because of the lack of accessibility of

similar files that are not collocated. With the creation of COINS II

networks and the resulting ability of the worldwide users to directly

utilize each others files we should be able to materially decrease the need

for new file creation. Estimated reduction in new file creations is

conservatively estimated at 20 per year resulting in annual savings of

$1-2 million.

The analyst users like the concept of COINS and have demonstrated

that COINS is valuable to them.

The rapid increase in number of users and number of queries show

that the analyst user will go to extreme measures to gain access to a

desired data base. This increase in usage has occurred despite a large

number of inhibiting factors such as:

a.   A number of difficult retrieval languages.

b.   Response times varying from minutes to hours to days

without notification of expected delays.

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c. An operational reliability of ~ 80%.

d. Noisey teletype terminals for access and output.

e. Deleted information for COINS users.

When one visualizes ~~how~~ *what* COINS ~~can~~ *might* be in a few years with inter-

active CRT terminals at the analyst station for query and ~~answers~~ *yes responses,* quiet

printers for hard copy output, increased commonality of file access

language, standardized coding for information in files, the analyst will

consider COINS to be the indispensable tool of his profession. His data

base should be timely, accurate, and accessible. His time will be spent

analyzing data automatically compiled for his purpose rather than

chasing data. Improved finished intelligence in a timely manner and at

reduced cost is a reasonable expectation.

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VIII   PROGRAM DEVELOPMENT

COINS

Our immediate objectives are to implement the COINS II

network upgrade program (See Attachment ___), initiate action on the

program elements listed in Section VI and provide for entrance of the CIA

host in '74, and the State host in '75.

Longer term objectives include the future entry of PACOM and

EUCOM hosts continued expansion of the utility of the COINS concept

for user communities, and development of evaluation and analysis

capabilities in addition to retrieval.

In addition, the COINS community, with the Intelligence $In/$$ m $ation$

Handling Committee and the Intelligence Community Product Review

Group, will continue to refine files content and coverage, to provide

more evaluated and integrated data, more summary files, improved

cross referencing, and improved file maintenance.

Related Programs

IDHS and COINS have a common interface and will be netted

such that COINS users will have access to IDHS resources and vice

versa. There are potential incompatibilities to be resolved but we

expect that lessons learned in this first case of interconnection between

networks and another information exchange network, will provide a

firmer basis for additional expansion. There are some problems concerning IDHS that need review and this is currently underway. These problems involve the network management structure, user mission requirements, interfaces as currently conceived, and provisions for software development consistent with proposed hardware employment. The results we expect to be expressed in an expanded program management plan. During this review, opportunities for more effective user participation through COINS access will be considered.

In a broader view of intelligence information handling systems we intend to look for other related subsystems where the COINS approach will be beneficial; move toward more commonality in terms of format standards and access languages; learn how to make better use of our distributed data bases in evaluation and analytical manipulation rolls; and finally, effectively couple users and their files that are now functionally separate, so that questions such as the resource implications of substantive intelligence issues can be addressed on-line.

Attachments

1. Diagrams of COINS network
2. List of COINS files
3. Files (Systems) now being evaluated for COINS:
   DSRS — OSIS — SOLIS - AEGIS -CIRCOL-
4. Proposal for COINS II network